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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/707,088 | 11/06/2000 | Juha Marila | 944-003.030 | 8324 |

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| EXAMINER | |
|---|---|
| STORM, DONALD L | |
| **ART UNIT** | **PAPER NUMBER** |
| 2654 | 8 |

DATE MAILED: 08/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|---|---|---|
| | 09/707,088 | MARILA ET AL. |
| | Examiner | Art Unit |
| | Donald L. Storm | 2654 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *November 6, 2000 through August 20, 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,6,17,19 and 20* is/are rejected.

7)☒ Claim(s) *2-5,7-16,18 and 21-27* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 November 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4,5,6*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Informalities*

1. Claims 2-5, 7-16, 18, and 21-27 are objected to as being (directly or indirectly) dependent upon a rejected base claim. See MPEP § 608.01(n)V. The claim(s) would be allowable over the prior art of record if rewritten to include all of the limitations of the base claim and any intervening claims.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Lybrook***

3. Claims 1, 6, 17, 19, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Lybrook et al. [US Patent 4,731,847].

4. Regarding claim 17, Lybrook's particular embodiment, which is established at column 2, lines 16-28, as beginning with speech input and conversion to text that is identifiable as a particular lyric, describes an apparatus for modification of the speech signal. For that embodiment, Lybrook describes the content and functionality of the recited limitations recognizable as a whole to one versed in the art as the following terminology:

a mapping mechanism for mapping syllables into a stream of tone data and for providing a tone signal indicative of the stream of tone data, [see Fig. 1, items 102, 104, 105, 108, and their

descriptions, especially at column 3, line 44-column 4, line 11, of the allophone extractor, syllable extractor, and allophone-to-song-with-pitch-determiner generating a sequence of syllables from text-to-allophones, associating them with pitch, and generating a pitch sequence];

the mapping is responsive to a speech signal [at column 2, lines 16-21, as words are verbally stated and to introduce the text];

the mapping is based on a predetermined rule regarding the syllables [at column 4, lines 25-41, as the associated pitch sequence is a specific song tune from a library of typical songs to be utilized with the textual material];

a forming mechanism, responsive to the tone signal, for providing a string of musical notes based on the stream of tone data, and for providing a carrier signal indicative of the string of musical notes [see Fig. 1, items 105, 107, 108, and their descriptions especially at column 3, line 62-column 4, line 24, of the allophone-to-song-with-pitch-determiner, pitch assignment, and synthesizer, that chooses and assigns pitch frequencies to notes so as to simulate a song and establishes the frequencies of the notes in a controller, which utilizes them in generating a pitch];

a modulation mechanism, responsive to the carrier signal, for modulating the carrier signal and for providing a modified speech signal indicative of the modulation [see Fig. 1, items 105, 106, 107, and their descriptions, especially at column 4, lines 51-55, of the allophone-to-song-with-pitch-determiner, allophone library to LPC parameters, synthesizer, and their descriptions, of adding the pitch to the synthesis control commands to generate a "song like" imitation];

the carrier is modified with the speech signal [at column 2, lines 10-21, as words are verbally stated to introduce the text that accesses text-to-speech LPC parameters];

a sound production device, responsive to the modified speech signal, for providing an audible signal representative of the speech signal, musically modified [see Fig. 1, items 107, 109,

and their descriptions, especially at column 3, lines 54-61, of the synthesizer and speaker operated by LPC command controls to communicate an analog signal of an auditory signal which simulates singing the song];

the modification was according to the predetermined rule regarding the syllables [at column 4, lines 25-41, as the associated pitch sequence is a specific song tune from a library of typical songs to be utilized with the textual material].

5. Regarding claim 19, Lybrook also describes:

the speech data is indicative of a user interface [at column 2, lines 16-21, as words are verbally stated by an operator and entered into a speech recognition apparatus to introduce the text].

6. Claim 1 sets forth a method with limitations comprising the functionality associated with using the system recited in claim 17. Because Lybrook describes the similar limitations as indicated there, this claim thus is anticipated accordingly.

7. Regarding claim 6, Lybrook also describes:

the predetermined rule includes assignment of tempo the musical notes [at column 4, lines 34-55, as the song tune has a duration sequence to be added to the parameters].

8. Claim 20 sets forth limitations similar to claim 17. Lybrook describes the limitations as indicated there. Lybrook also describes additional limitations as follows:

a generating mechanism for providing a speech signal including a stream of speech data having a plurality of syllables [see Fig. 1, items 102, 104, 105, 106, 107, 109, and their descriptions, especially at column 3, line 44-column 4, line 11, of the allophone extractor, syllable extractor, allophone-to-song-with-pitch-determiner, allophone library to LPC parameters, synthesizer generating allophones, generating a sequence of syllables from text-to-allophones, generating LPC command controls, generating an analog signal, and communicating an analog signal to a speaker that simulates singing];

the generating is responsive to a user-interface event and the speech signal is indicative of the user-interface event [at column 2, lines 16-21, as words are verbally stated by an operator and entered into a speech recognition apparatus to introduce the text].

***Conclusion***

9. The following references here made of record are considered pertinent to applicant's disclosure:

Schwartz [US Patent 4,856,055] describes an incoming call annunciator in which voice messages may be recorded and played back as notification of an incoming call.

Shen et al. [US Patent 5,481,594] describes an incoming call annunciator in which voice messages may be recorded and played back or text messages may be stored and converted to speech.

Ohta et al. [US Patent 5,747,715] describes tone generation based on consonant or vowel content of syllables for speech synthesis.

Cecys [US Patent 5,930,755] synthesizes speech using mixtures of recorded voice sources and other sources of sound as excitation parameters.

Yoshino [US Patent 6,308,086] customizes a ring signal by generating ring tones and rhythm from input of musical notes by humming and tapping.

Stephenson [US Patent 6,385,581] converts text to speech and mixes the speech output with background sounds in emotive relation to the text.

Cloutier [US Patent 6,459,913] provides text to speech conversion to include a meaningful report in an alarm message or alert message of a scheduled event.

Kermani [US Patent 6,697,796] provides speech to text conversion of voice mail messages and playback of the voicemail audio.

Metcalf [US Patent Application Publication 2002/0085700] records entertaining messages that may be played back during an incoming telephone call.

10. Any response to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**or faxed to:**

(703) 872-9306, (for formal communications intended for entry)

**Or:**

(703) 872-9306, (for informal or draft communications, and please label "PROPOSED" or "DRAFT")

Patent Correspondence delivered by hand or delivery services, other than the USPS, should be addressed as follows and brought to U.S. Patent and Trademark Office, 220 20th Street S., Customer Window, Crystal Plaza Two, Lobby, Room 1B03, Arlington, VA, 22202

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Storm, of Art Unit 2654, whose telephone number is

(703) 305-3941. The examiner can normally be reached on weekdays between 8:00 AM and 4:30 PM Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703) 305-9645.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Inquiries regarding the status of submissions relating to an application or questions on the Private PAIR system should be directed to the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028 between the hours of 6 a.m. and midnight Monday through Friday EST, or by e-mail at: ebc@uspto.gov. For general information about the PAIR system, see http://pair-direct.uspto.gov.

Donald L. Storm

Donald L. Storm
Patent Examiner
Art Unit 2654

August 19, 2004